

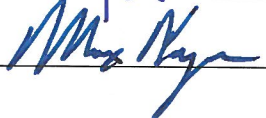


ROLLING 5-YEAR VEGETATION ACTION PLAN CALENDAR YEAR 2012

North Umpqua Hydroelectric Project
FERC Project No. 1927

AUTHORIZATIONS

Final
Approved: PacifiCorp 1/27/12 (date)  (signature)
USDA – FS 1/17/12 (date)  (signature)
USDI – BLM 1/19/12 (date)  (signature)

ATTACHMENTS

1. Annual VMP Meeting Notes
2. 2011 ROW Completion and Compliance Review Report
3. Mitigation and Monitoring Data Forms

Rolling 5-Year Vegetation Action Plan

Program/Activities	Action Lead	Prior Year	Current Year	Out Year #1	Out Year #2	Out Year #3
		CY 2011	CY 2012	CY 2013	CY 2014	CY 2015
VMP Section 2.2: Rolling 5-year Vegetation Management Action Plan						
Prepare RAP report for Annual RCC Meeting	PacifiCorp	X	X	X	X	X
VMP Section 3.1: Transmission Line Row Vegetation Maintenance						
Inspect T-line ROWs for vegetation management needs.	PacifiCorp	X	X	X	X	X
Notify USDA-FS of annual aerial inspection schedule for T-line ROWs.	PacifiCorp	X	X	X	X	X
Prepare annual T-line inspection report specifying annual vegetation management needs. Submit report to USDA-FS and USDI-BLM for approval.	PacifiCorp	X	X	X	X	X
Review and approve annual T-line inspection report and specify terms and conditions required for resource protection.	USDA-FS/USDI-BLM	X	X	X	X	X
Incorporate annual T-line inspection report into upcoming RAP.	PacifiCorp	X	X	X	X	X
Coordinate planned annual vegetation management along T-line ROWs with USDA-FS and USDI-BLM: 1) Hazard tree removal 2) Vegetation clearing 3) Slash and debris removal	PacifiCorp	X	X	X	X	X
Comply with USDA-FS and USDI-BLM terms and conditions when managing vegetation along T-line ROWs.	PacifiCorp	X	X	X	X	X
Inspect as required completed vegetation management actions along T-line ROWs.	PacifiCorp/ USDA-FS	X	X	X	X	X
VMP Section 3.2: Distribution Lines						
Inspect D-line ROWs for scheduled vegetation management needs. Refer to the attached 10-year draft schedule for planned 4-year cycle and 2-year interim vegetation management actions.	PacifiCorp	X	X	X	X	X

Program/Activities	Action Lead	Prior Year	Current Year	Out Year #1	Out Year #2	Out Year #3
		CY 2011	CY 2012	CY 2013	CY 2014	CY 2015
Prepare annual D-line inspection report specifying annual vegetation management needs. Submit report to USDA-FS for approval.	PacifiCorp	X	X	X	X	X
Review and approve annual D-line inspection report and specify terms and conditions required for resource protection.	USDA-FS/ USDI-BLM	X	X	X	X	X
Incorporate annual D-line inspection report into upcoming RAP.	PacifiCorp	X	X	X	X	X
Coordinate planned annual vegetation management along D-line ROWs with USDA-FS: 1) Hazard tree removal 2) Vegetation clearing 3) Slash and debris removal	PacifiCorp	X	X	X	X	X
Comply with USDA-FS and USDI-BLM terms and conditions when managing vegetation in and along D-line ROWs	PacifiCorp	X	X	X	X	X
Inspect as required completed vegetation management actions along D-line ROWs.	PacifiCorp/ USDA-FS	X	X	X	X	X
VMP Section 3.3: Other Project Facilities						
Plan ongoing vegetation management in accordance with spatial and temporal constraints for protecting special status resources.	PacifiCorp	X	X	X	X	X
Adhere to measures defined on VMP pages 27-28 for fire prevention and control, etc. This also relates to VMP Sections 3.1 and 3.2.	PacifiCorp	X	X	X	X	X
During RAP meetings, coordinate with the USDA-FS planned annual vegetation management at PacifiCorp facilities: 1) Hazard tree removal 2) Vegetation clearing 3) Slash and debris removal 4) Noxious weed treatment	PacifiCorp	X	X	X	X	X

Program/Activities	Action Lead	Prior Year	Current Year	Out Year #1	Out Year #2	Out Year #3
		CY 2011	CY 2012	CY 2013	CY 2014	CY 2015
Pass large woody debris at Soda Springs and Slide Creek dams as required.	PacifiCorp	X	X	X	X	X
Transport large woody debris removed from reservoirs to an approved burn site and request required burn permits from the USDA-FS.	PacifiCorp	X	X	X	X	X
Report at the annual RAP about the removal of large woody debris from impoundments.	PacifiCorp	X	X	X	X	X
In consultation with USDA-FS, identify and target the removal of invasive horticultural species from PacifiCorp facilities. Revisit issue every 5 years (update in 2013).	PacifiCorp/ USDA- FS			X		
In consultation with USDA-FS, develop an information packet about invasive horticultural species to be avoided in landscaping. Distribute package to PacifiCorp staff and incorporate in residency agreement. Revisit issue every 5 years (update in 2013).	PacifiCorp/ USDA- FS			X		
Maintain the horticultural invasive species removal program by removing invasive species and ensuring that all residents are familiar with the invasive horticultural species information booklet.	PacifiCorp	X	X	X	X	X
VMP Section 4.2: Noxious Weed Inventory						
Inventory terrestrial noxious weeds and sample aquatic noxious weeds every 3 years. Last inventory in 2009.	PacifiCorp		X			
Update and maintain noxious weed database every 3 years.	PacifiCorp		X			
Integrate most recent weed inventory data with USDA-FS data to develop a combined GIS database for tracking noxious weed populations and treatments	PacifiCorp/ USDA- FS			X		
Conduct QA/QC of noxious weed GIS maps and databases.	PacifiCorp/ USDA – FS			X		

Program/Activities	Action Lead	Prior Year	Current Year	Out Year #1	Out Year #2	Out Year #3
		CY 2011	CY 2012	CY 2013	CY 2014	CY 2015
VMP Section 4.3: Noxious Weed Prevention and Monitoring						
To reduce noxious weeds within the FERC Project Boundary, implement Best Management Practices (BMPs) described in the September 2005 USDA-FS Weed EIS ROD and consistent with PacifiCorp's Environmental Management System (EMS).	PacifiCorp	X	X	X	X	X
Develop a noxious weed awareness program for PacifiCorp staff and contractors: 1) Photo-identification booklet with plant descriptions 2) Weed reporting procedure Training needs will be reevaluated every 3 years.	PacifiCorp			X		
Develop a noxious weed awareness program for PacifiCorp staff and contractors: 3) Annual training materials and meeting schedule	PacifiCorp/ USDA-FS	X	X	X	X	X
Train PacifiCorp Hydro and T&D staff and contractors to recognize and document ODA-designated noxious weeds potentially encountered while working within the FERC Project Boundary. Conduct training in coordination with the USDA-FS, USDI-BLM, and ODA when feasible.	PacifiCorp	X	X	X	X	X
Treat noxious weed infestations before conducting maintenance activities in infested areas, or perform work prior to seed set or after seed dispersal.	PacifiCorp	X	X	X	X	X
Implement and monitor a Standard Operating Procedure for equipment and vehicle cleaning.	PacifiCorp	X	X	X	X	X
Through the RAP and RCP processes, annually meet with the USDA-FS and UDSI-BLM and review upcoming vegetation maintenance, erosion control, and construction projects relative to known noxious weed infestations.	PacifiCorp	X	X	X	X	X

Program/Activities	Action Lead	Prior Year	Current Year	Out Year #1	Out Year #2	Out Year #3
		CY 2011	CY 2012	CY 2013	CY 2014	CY 2015
Through the RCP process, minimize ground disturbance at construction sites, and revegetate sites disturbed by O&M and construction actions >100 sf, as appropriate.	PacifiCorp	X	X	X	X	X
Following project completion, summarize and report weed treatments, revegetation measures, and monitoring schedule implemented (not required for emergencies or hazard tree removals).	PacifiCorp	X	X	X	X	X
Monitor the effectiveness of weed prevention measures at vegetation maintenance, erosion control, and construction sites. Report the findings at annual RAP meetings. Refer to the RCP process for projects that might include monitoring.	USDA-FS/ USDI-BLM	X	X	X	X	X
VMP Section 4.4: Noxious Weed Control and Monitoring						
Develop and maintain treatment plans and schedules for high-priority noxious weed populations.	PacifiCorp/ USDA- FS	X	X	X	X	X
Develop and maintain a GIS database to track annual noxious weed treatments.	PacifiCorp/ USDA- FS	X	X	X	X	X
Update noxious weed plans and schedules annually until treatments and monitoring are discontinued.	PacifiCorp/ USDA- FS	X	X	X	X	X
Monitor effectiveness of noxious weed treatments at priority infestations for 3 yrs. following eradication. Begin documenting effectiveness monitoring in 2008.	PacifiCorp/ USDA - FS	X	X	X	X	X
Continue noxious weed treatments, experimenting with more difficult infestations, and report progress at next annual RAP meeting.	USDA-FS	X	X	X	X	X
At annual RAP meetings, report weed prevention and control actions conducted under a PacifiCorp-USDA-FS Financial Plan.	USDA-FS	X	X	X	X	X
Review ongoing noxious weed treatments and effectiveness monitoring at annual RAP meetings.	PacifiCorp	X	X	X	X	X

Program/Activities	Action Lead	Prior Year	Current Year	Out Year #1	Out Year #2	Out Year #3
		CY 2011	CY 2012	CY 2013	CY 2014	CY 2015
VMP Section 5.0: Revegetation						
Discuss overall vegetation management topics at the annual RAP meetings to ensure continued coordination.	PacifiCorp/ USDA-FS/ UDSI-BLM	X	X	X	X	X
Identify upcoming needs for seed and plant materials, appropriate sources, and collection methods. Needs might require 2+ years of advance notice to ensure sufficient availability.	PacifiCorp/ USDA- FS	X	X	X	X	X
Continue to evaluate potential sites to be revegetated. Sites may include knapweed infestations that have been treated and compacted forebay areas. In 2008, develop revegetation plans for small test projects to evaluate feasibility of restoring compacted forebay areas.	PacifiCorp/ USDA- FS	X	X	X	X	X
Annually inspect 20% of revegetation sites and report on effectiveness at annual RAP meeting.	PacifiCorp	X	X	X	X	X
Conduct revegetation required for large scale PM&E construction and O&M actions through the RCP review and approval process rather than the RAP process.	PacifiCorp	X	X	X	X	X

SUMMARY OF RESULTS FROM THE PREVIOUS VMP CALENDAR YEAR ACTION PLAN

Non-routine Projects Completed Last Year

- Lemolo 2 Flume 12 Failure Remediation

Projects Not Completed and Carried forward to the Current Year

- Planting of shrubs at the Lemolo 2 Forebay dredge disposal site
- Planting of Stinkhole Wetland
- Planting of Lemolo 2 Reroute disturbed areas

Unanticipated Events

- None

CHANGES IN VMP RESPONSIBILITIES OF THE PARTIES: ASSUMPTIONS, RATIONALE, AND PERCENTAGES

- None

UPCOMING REVEGETATION PROJECTS REQUIRING COORDINATION AND/OR PLANT MATERIALS

- Soda Springs Fish Ladder (2012) – Forested upland and riparian habitats
- Aquatic Connectivity Sites (2012-2016) – Various habitats with potential for construction-related disturbance
- Additional Wetland Enhancement Projects TBD (2013-2016) – Emergent and forested wetland habitats

**NORTH UMPQUA HYDROELECTRIC PROJECT
VEGETATION MANAGEMENT PLAN**

**ANNUAL VEGETATION MEETING
AND ROLLING ACTION PLAN UPDATE**

**MEETING NOTES AND ACTION ITEMS
UNF Supervisor's Office, Roseburg, OR
November 30, 2011**

Attendees: **Barnes & Associates:** Fred Arnold
BLM: Anne Shirley
PacifiCorp: Steve Albertelli, Monte Garrett, Joe Partridge, Randy Miller
Trees, Inc.: Jim Herndon, Charlie Morse
USFS: Stacy Ainslie, Eric Baxter, Bryan Benz, Richard Helliwell,
Amanda Lucas, Pam Sichtung

Meeting Summary:

1. The group reviewed the draft VMP RAP and provided comments and edits as necessary. The 2011 ROW Completion and Compliance Review Report, and Mitigation and Monitoring Data Forms were distributed for review with the VMP RAP.
2. Jim and Joe provided a summary of the ROW Report. Trees, Inc. crews were primarily focused on maintenance of lines greater than 200 kV in 2011. Work approved by USFS and BLM in 2011 will be completed in 2012. In addition to previously approved work, approximately 11 miles of new maintenance actions from Buckhorn Road east to the TL46 crossing of Highway 138 (approximately Milepost 27) and hot spots identified by aerial inspections will be submitted for approval in early 2012.
3. Amanda confirmed that the aerial inspection notification process is working well for all involved. Joe confirmed that he would notify Steve prior to all aerial inspections.
4. Randy initiated a discussion of cover type conversion from trees to low-growing, native shrubs, forbs, and grasses within managed ROWs. USFS staff expressed support of the concept, and Richard suggested that opportunities exist for coordination between USFS and PacifiCorp during planned timber sales adjacent to ROWs. Richard specifically mentioned the pending Oak Flat and Lemolo timber sales. Eric was identified as a contact for Joe to discuss appropriate species and treatments in future efforts.
5. In relation to Item 3, Randy asked USFS staff for an update on herbicide use on federal lands. Richard explained that there is an updated NEPA document for use of herbicides on noxious weeds, but there is no new NEPA for use of herbicides for general vegetation control. Richard will email the updated EIS to Steve. If Randy chooses to pursue a regional EIS for cover type conversion actions,

- including the use of herbicides, USFS staff recommended contacting Kristin Bonnono, the energy team leader at the regional office. Anne will provide the group with an email update following the meeting on the pending EIS for herbicides on BLM-managed lands.
6. Pam reminded the group that burn permits are required at all times, including periods outside of fire season.
 7. Eric expressed concern with the expansion of road widths, turnouts, and landings, specifically along Lemolo 2 canal. Concerns include the compaction of disturbed areas and the potential expansion of weed species. Steve and Monte suggested that any expansion of roads and/or disturbed areas was likely the result of the intensity of implementation project construction in recent years and should subside as the number of large-scale projects has and will continue to decrease in future years. Pam suggested that Eric define areas of concern and provide mapping of these sites for ripping, seeding, and planting. PacifiCorp will increase awareness of these concerns with project managers and contractors to ensure adequate de-compaction and revegetation of post-construction sites.
 8. Fred provided an update on the on-going horticultural invasive species removal program. Fred confirmed that we are now in maintenance mode after several years of intense treatment. Lower Clearwater Village and Toketee Loop continue to receive the majority of treatment efforts. Richard reiterated that the knotweed infestation behind the Toketee Village Loop residences is a treatment and control priority. Fred confirmed that the area had been treated and covered with landscape fabric.
 9. The group discussed the pending noxious weed inventory. Richard and Steve are coordinating potential cost sharing of aquatic invasive species surveys to be conducted by Portland State's Center for Lakes and Reservoirs. PacifiCorp will respond to the estimate provided by Richard by the end of the week. The methodology and presentation of results from the 2009 surveys were determined to be acceptable for use in the 2011 surveys.
 10. The group discussed the on-going noxious weed treatments. Eric focused much of the effort in 2011 on the post-burn areas near Moore Hill Lane. Steve will send the current outage schedule to Eric for planning of future herbicide treatments adjacent to the canals.
 11. Anne will follow up with an email following the meeting to detail weed treatments conducted on BLM-managed lands in 2011 and any proposed treatments for 2012.
 12. The group reviewed the Mitigation and Monitoring Data Forms and discussed potential augmentation and/or weed treatments at revegetation sites. Eric will perform additional treatments at the Fish Creek Screens Staging Areas and Lemolo 1 forebay wetland and disturbed areas. Steve detailed efforts to control Canada thistle at Ranawapiti (dam and swale areas). Steve and Eric will coordinate future control efforts at this site.
 13. The group reviewed PacifiCorp's projected needs for revegetation materials as listed in the RAP. Eric will begin nursery production of wetland plant species for use in future wetland enhancement sites.

14. The group approved the RAP for signature at the annual RCC meeting pending minor edits to be completed following the meeting by Steve.

**2011 ROW Vegetation Management
Completion and Compliance Review Report
North Umpqua Hydroelectric Project (FERC 1927)**

Introduction

This report documents actions performed or funded during 2011 by PacifiCorp Energy and/or Pacific Power to support compliance with the North Umpqua Hydroelectric Project Vegetation Management Plan (VMP, 2004) within transmission and distribution (T&D) rights of ways (ROW's). This completion and compliance review report represents Step 6 of the document, 'Standard Operating Procedure; Coordination, Agency Approval, and Documentation: Annual Vegetation Management within Transmission and Distribution Line Rights-of-Way' (SOP).

The goal for 2010 VMP vegetation management actions within T&D ROW's was to bring the following transmission and distribution lines into compliance with specifications described in pertinent Occupational Safety and Health Administration Standards and Sections 3.1 and 3.2 of the VMP: Transmission Lines (TL) 39 and 46, and Distribution Circuits Briggs (6U17), Idlelyd (5U83), Diamond Lake (5U920), and Slide Creek (6U12). The majority of work on transmission Lines (TL) 39 and 46 progress was placed on hold due to resources being redirected to address tree conditions on main grid transmission lines. Distribution circuits were not fully worked, but rather imminent tree conditions were addressed.

Vegetation Management Plan Implementation

Aerial Inspection

Aerial inspections are conducted via helicopter to efficiently survey the extensive, and often remote, transmission line network. Notification of aerial inspection flights was sent via email on February 16, May 6, July 22, and September 29 to the U.S. Forest Service (USFS), the Bureau of Land Management (BLM), and the Douglas Forest Protection Association (DFPA). Aerial inspections occurred on February 17, May 9, July 29, and September 30. Aerial inspections were conducted as much as possible in the early fall to avoid restrictions from and potential impacts to nesting raptors.

Ground Inspections

Ground inspections of the transmission lines were performed in November and December 2010 by Ron Krogel of Trees, Inc. Data forms and associated maps indicating proposed vegetation management actions were submitted to Steve Albertelli (PacifiCorp) for processing and USFS approval requests. Proposed actions within the T&D ROWs included hazard tree removal, topping, trimming, thinning, brush removal, and mowing with a rubber tire mower. With the exception of the mowing, all actions proposed were to be performed by hand (without machinery). A total of 184 hazard trees measuring 12 inches dbh or greater (4 trees over 28 inches dbh) were identified for removal. Trees were tagged, measured, and identified to species. Locations were recorded with a Trimble GeoXT GPS unit.

Notice To Proceed Requests

Actions within the FERC boundary on USFS and BLM lands require GIS data, associated descriptions for each action, and approval through the Notice to Proceed (NTP) process. All hazard trees must be measured, identified, and marked for reporting pursuant to the USFWS-issued Biological Opinion. Coordination for actions within the FERC boundary is accomplished by PacifiCorp Hydro Resources staff (Steve Albertelli) in consultation with USFS (Pam Sichtung) and BLM (Anne Shirley). The USFS and BLM points-of-contact are then responsible for coordinating internal staff approvals (e.g. archaeology, botany, et al.) and communicating the final approval and any required mitigations back to Hydro Resources staff.

Actions outside of the FERC boundary require maps and descriptions and are approved through ROW agreements and/or Special Use Permits with USFS and BLM. Coordination for actions outside of the FERC boundary are accomplished by PacifiCorp ROW staff (Scott Mease) and/or Trees, Inc. (Jim Herndon) in consultation with USFS ROW staff (Robin Duarte)

Data forms and maps reflecting proposed vegetation management actions were organized, scanned, copied, saved electronically, and submitted to the appropriate agency for review and approval prior to performing the work. PacifiCorp requested NTP from USFS on March 9th (standard ROW maintenance). Similarly, request for approval was made to BLM on February 18th.

Distribution line work for 2011 was primarily located outside of the FERC project boundary and, as such, was approved accordingly through coordination between USFS and PacifiCorp ROW staff.

Receipt of Notices to Proceed

NTP were received by PacifiCorp from USFS on June 1st (12-week turnaround time). Approvals were received by PacifiCorp from BLM on March 21th (4-week turnaround time).

Vegetation Management Action

Approved vegetation management actions are currently being implemented on the Umpqua National Forest and BLM administered lands. Work is generally proceeding in an east to west fashion so that higher elevation work will be completed before snow prohibits any further activity. Conditions of the USFS-issued NTP's are being adhered to, and no resource protection violations have been detected during execution and inspection of the vegetation management actions.

Work was originally projected to be completed by December 2011, in the following locations: Soda Springs hazard trees, Oak Flat hazard trees, Toketee hazard trees, and the majority of identified work on TL 39 and 46. Approximately 18% of the Soda Springs hazard trees were completed, no work was completed in the Oak Flats area, and minimal work was done in the Toketee area. Approximately 30% of work identified on sheets 21-25 remains on TL 39 and 46. Work identified on sheets 29-30 is complete.

The following work was not yet complete: Line 42, Toketee Control to Soda Generator 18% complete (4.5 miles, sheet 35-37); Line 51, Clearwater Sub to Toketee Control 18% complete (3.2 miles, sheets 43 and 37); Line 53, Clearwater Sub to Lemolo 1 Generator 3% complete (12

miles, sheets 43, 50-51, 56, 57, 59-61); Line 55, Lemolo 2 to Clearwater Sub 87% complete (1.3 miles, sheets 43 and 50); and Line 57, Clearwater 1 to Clearwater Sub 0% complete (6 miles, sheets 46-47).

Vegetation Management Actions Within T&D ROW's Proposed for 2012

Ground inspections commenced in November 2011 and will continue through Spring 2012. Aerial inspections of transmission lines are expected to occur in Fall 2012. According to the PacifiCorp Vegetation Management Schedule for North Umpqua Distribution Circuits, no distribution circuits will be subject to cycle trims in 2012. New work within the transmission line ROWs for 2012 was identified by Fall 2011 aerial and ground inspections and will be submitted for agency approval in the first quarter of 2012.

Work identified and approved in 2011 will continue in 2012 in the following locations: TL 39 miles 21 through 30 and 33 through 37 identified on Map Sheets 21-25 and 29-30 (paralleled by TL 46 miles 18 through 27 and 30 through 35), in addition to continued unfinished work noted in Vegetation Management Action section.

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: Gravel Bin T-line Screening Trees	Date: 8.2.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. View of trees on the east end of turn-out	N/A
2. View of trees on the west end of turn-out	% Mortality:
3.	Gravel Bin: 10% from 2009 plantings
4.	Augmentation Recommended?
5.	No
6.	Noxious weeds present?
7.	Yes: St. John's wort, blackberry, Queen Anne's lace
8.	Weed Treatment Recommended?
9.	No additional
10.	Weed Treatment Performed?
11.	Yes: removed weeds around base of plantings.
Notes (include any additional information regarding weeds):	
No additional plantings recommended. All of the main trees at Gravel Bin showed new growth at the tips. Most of the plantings are now ~6' tall.	



Photo 1



Photo 2

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: FC CSDS Site 1	Date: 7.27.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. Overview looking west	85
2. Overview looking east	% Mortality:
3.	Original Douglas-fir and pines: 50
4.	Augmentation Recommended?
5.	No
6.	Noxious weeds present?
7.	No
8.	Weed Treatment Recommended?
9.	No
10.	Weed Treatment Performed?
11.	No
Notes (include any additional information regarding weeds):	
Minor improvement from last year. Native recruitment continuing along edges. Still predominantly grasses (i.e. few trees or shrubs). 2012 will be final monitoring year.	



Photo 1



Photo 2

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: FC CSDS Site 2	Date: 7.27.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. Overview from below	100
2. Overview from above	% Mortality:
3.	No new
4.	Augmentation Recommended?
5.	No
6.	Noxious weeds present?
7.	Yes: <i>Lotus corniculatus</i> , <i>Melilotus alba</i> , oxeye daisy
8.	Weed Treatment Recommended?
9.	No additional
10.	Weed Treatment Performed?
11.	Yes, pulled oxeye daisy.
Notes (include any additional information regarding weeds):	
First year with no thistle. Vigorous alder growth. Pines and Douglas-firs doing good on the lower slope. Madrones persisting on the upper slope. 2012 will be the final monitoring year.	



Photo 1



Photo 2

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: FC Screen Ponds and Wetlands	Date: 7.27.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. Looking west at intake wetland	100
2. Overview of pond, looking west	% Mortality:
3.	0
4.	Augmentation Recommended?
5.	No
6.	Noxious weeds present?
7.	No
8.	Weed Treatment Recommended?
9.	No
10.	Weed Treatment Performed?
11.	No
Notes (include any additional information regarding weeds):	
<i>Melilotus</i> explosion on adjacent roads. Wetland emergents thriving. <i>Carex</i> and <i>Glyceria</i> progressing out onto shallow shelf. 2012 will be the final monitoring period.	



Photo 1



Photo 2

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: FC Screen Staging Areas	Date: 7.27.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. Overview of northern-most pad	Average 75%
2. Looking east at old roadbed	% Mortality:
3. Overview of middle staging area	Cedars 100%, D-f 50%, Other 10%
4. Overview of southern-most pad adjacent to river	Augmentation Recommended?
5.	Yes, additional plantings
6.	Noxious weeds present?
7.	Yes, bull thistle
8.	Weed Treatment Recommended?
9.	No additional
10.	Weed Treatment Performed?
11.	Yes, pulled thistle
Notes (include any additional information regarding weeds):	
<i>Melilotus</i> is back. <i>Lotus unifoliolatus</i> still present. <i>Rumex</i> in center pad. Alders and Douglas-firs persisting.	



Photo 1



Photo 2



Photo 3



Photo 4

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: Lemolo 1 Forebay Wetland	7.27.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. Overview looking north from road	Wetland areas 30%, Upland 5%
2. Detail of looking north from weir	% Mortality:
3. Detail of emergents in micro-depression	Pines 50%, Alder/Willow 5%, Df/Hemlock 30%, Emergents <5%
4. Looking north at transition swale	Augmentation Recommended?
5. Looking west at swale and overflow	No
6. Detail looking south from weir	Noxious weeds present?
7.	No
8.	Weed Treatment Recommended?
9.	No
10.	Weed Treatment Performed?
11.	No
Notes (include any additional information regarding weeds):	
Emergents and wetland scrub/shrub doing great for year one. Significant bare ground in upland. Lupine doing great. Upland mortality similar to adjacent forebay disturbed area.	



Photo 1



Photo 2



Photo 3



Photo 6



Photo 4



Photo 5

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: Lemolo Lake Wetland	Date: 8.17.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. Overview from above	Wetland areas 100%, Upland 45%
2. Detail of wetland between upper ponds	% Mortality:
3. Looking south at lower pond	5%
4. Detail of uplands from below	Augmentation Recommended?
5. Detail of uplands from above	No
6.	Noxious weeds present?
7.	No
8.	Weed Treatment Recommended?
9.	No
10.	Weed Treatment Performed?
11.	No
Notes (include any additional information regarding weeds):	
First year of good progress in the upland areas. Lupine, <i>Ribes</i> , pines, spruces, et al. are thriving. Attention given to willows, aspens and other transitional species has been beneficial. Wetland emergents are established and supporting amphibian breeding.	



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: Potter Creek	7.27.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. Overview looking upstream from road	100
2. Looking downstream toward canal	% Mortality:
3. Looking downstream from road	No additional
4.	Augmentation Recommended?
5.	No
6.	Noxious weeds present?
7.	Yes, bull thistle
8.	Weed Treatment Recommended?
9.	No additional
10.	Weed Treatment Performed?
11.	Yes, pulled thistle
Notes (include any additional information regarding weeds):	
Weeds from years past scoured and/or buried after high flows. Alders thriving and providing shade for creek. Final year of monitoring. No additional maintenance required.	



Photo 1



Photo 2



Photo 3

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: Ranawapiti	7.27.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. Looking south at willows on dam	Average 90%
2. Overview looking southwest	% Mortality:
3. Detail of north bank looking east	Conifers 50%, Other 0%
4. Looking east at decommissioned road	Augmentation Recommended?
5. Detail of emergents in micro-depression	Yes, willow stakes and alders
6. Overview looking northwest	Noxious weeds present?
7.	Yes, bull thistle, Canada thistle, <i>Lotus</i> spp., St. John's wort
8.	Weed Treatment Recommended?
9.	Yes
10.	Weed Treatment Performed?
11.	Some, pulled thistle
Notes (include any additional information regarding weeds):	
Vegetation filling in during year two; no more bare slopes. Grass augmentation was helpful. Emergents are thriving and filling in areas with lower relative WSEL. Needs augmentation of tree/shrub height classes.	



Photo 1



Photo 2



Photo 3



Photo 6



Photo 4



Photo 5

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: Stump Lake Connectivity Ramp	8.17.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. Downstream side from the top of dam	80
2. Upstream side from the top of the dam	% Mortality:
3.	0
4.	Augmentation Recommended?
5.	No
6.	Noxious weeds present?
7.	Yes, St. John's wort
8.	Weed Treatment Recommended?
9.	No
10.	Weed Treatment Performed?
11.	No
Notes (include any additional information regarding weeds):	
More paintbrush, thimbleberry, and blackcap filling in this year. Continued growth of emergents/in-channel plantings. Looks good overall.	



Photo 1



Photo 2

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: Stump Lake Wetland	8.17.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. Overview from north	Wetland 100%, Clay cap/road 75%
2. Willow and alders at north weir	% Mortality:
3. Overview from west	No new
4. Northern cap/road segment	Augmentation Recommended?
5. Middle cap/road segment	No
6. Overview from south	Noxious weeds present?
7.	Yes, bull thistle
8.	Weed Treatment Recommended?
9.	Yes
10.	Weed Treatment Performed?
11.	Yes, pulled thistle
Notes (include any additional information regarding weeds):	
Wetland maturing. Alder, Manzanita, and pines on cap/road are growing. Vegetation targets achieved. Final year of monitoring.	



Photo 1



Photo 2



Photo 3



Photo 6



Photo 4



Photo 5

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: Watson Ridge	8.17.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. View of cable ROW from lower road	10
2. View of cable ROW from comm. tower road	% Mortality:
3.	10
4.	Augmentation Recommended?
5.	No
6.	Noxious weeds present?
7.	No
8.	Weed Treatment Recommended?
9.	No
10.	Weed Treatment Performed?
11.	No
Notes (include any additional information regarding weeds):	
Limited grass growth due to heavy slash treatment on ROW. Soils stabilized. Plantings persisting, but could use fertilizer treatment.	



Photo 1



Photo 2

Mitigation and Monitoring Data Form	
Vegetation Management Plan, ACOE and DSL permit compliance, North Umpqua Hydroelectric Project	
Site: White Mule Creek	7.27.11
Personnel: Steve Albertelli	
Photos (brief description and photo #, if available):	% Aerial Cover:
1. Overview from Bird's Point Road	85
2. Detail of riparian plantings	% Mortality:
3. Looking southwest from downstream side of road	0
4. Downstream channel from canal road	Augmentation Recommended?
5. Upstream channel from canal road	No
6.	Noxious weeds present?
7.	Yes, St. John's wort, oxeye daisy
8.	Weed Treatment Recommended?
9.	No
10.	Weed Treatment Performed?
11.	No
Notes (include any additional information regarding weeds):	
Strong growth this year. Additional cover on problematic downstream side of road. Elderberry, alder and pines doing great. 2012 will be final monitoring year.	



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5